ABSTRACT OF THE DISCLOSURE:

A parity generating circuit 201 in a 0 side 20 receives input signals s21 on respective signal lines and produces a parity bit p20 based on the input signals s21. A parallel/serial converting circuit 203 multiplexes parallel signals s22 (or input signals s21) and the parity bit p20 into a serial signal s23 with reference to a timing signal t20. A serial/parallel converting circuit 211 in a 1 side 21 is reproduces parallel signals S24 and a parity signal p21 and produces a parity check timing signal t21. A parity checking circuit 212 checks a parity of the parallel signals s24 by the use of the parity signal p21. If normal, a state holding circuit 213 holds outputs s25 of the parity checking circuit 212 as a state signal. If abnormal, held content of the state holding circuit 213 is cleared.

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